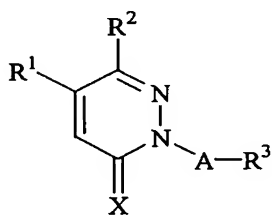


CLAIMS

1. A method of inhibiting OPN production, comprising administering an effective amount of a pyridazine derivative represented by the following formula (I) or a derivative thereof:

[Chemical Formula 2]



(I)

wherein:

R¹ means a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and C₁₋₆ alkoxy groups;

R² means a phenyl group which may be substituted at the 4-position thereof with a C₁₋₆ alkoxy group or C₁₋₆ alkoxythio group and may also be substituted at one or two other positions thereof a like number of substituents selected from halogen atoms, C₁₋₆ alkoxy groups and C₁₋₆ alkoxythio groups;

R³ means a hydrogen atom; a C₁₋₆ alkoxy group; a halogenated C₁₋₆ alkyl group; a C₃₋₆ cycloalkyl group; a phenyl, pyridyl or phenyloxy group which may be substituted by 1 to 3 substituents selected from halogen

atoms, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, carboxyl groups, C₂₋₇ alkoxycarbonyl groups, nitro groups, amino groups, C₁₋₆ alkylamino groups and C₁₋₆ alkylthio groups; a substituted or unsubstituted piperidino, piperidyl, 5 piperazino or morpholino group; a substituted or unsubstituted aminocarbonyl group; a C₂₋₇ alkylcarbonyl groups; or a substituted or unsubstituted piperazinocarbonyl group;

A means a single bond, a C₁₋₆ linear or branched 10 alkylene group, or a C₂₋₉ linear or branched alkenylene group; and

X means an oxygen atom or a sulfur atom, with a proviso that A is a single bond when R³ is a halogenated C₁₋₆ alkyl group.

15 2. The method of claim 1, wherein in the formula (I),

R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a halogen atom selected from fluorine, chlorine or bromine or a C₁₋₆ alkoxy group;

20 R² is a phenyl group substituted at the 4-position thereof with a C₁₋₆ alkoxy group or a C₁₋₆ alkylthio group;

R³ is a hydrogen atom or a phenyl or pyridyl group which may be substituted by halogen atom or atoms; and

A is a C₁₋₃ alkylene group or C₃₋₄ alkenylene group.

25 3. The method of claim 1, wherein in the formula (I),

R^1 is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a chlorine atom or a methoxy group;

R^2 is a phenyl group substituted at the 4-position thereof with a methoxy group or a methylthio group;

R^3 is a hydrogen atom, phenyl group, 4-chlorophenyl group, 2-pyridyl group or 3-pyridyl group; and

A is a methylene group, ethylene group or 2-propenylene group.

4. The method of claim 1, wherein the active ingredient is

5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(2-pyridylmethyl)-2H-pyridazine-3-thione,

5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(3-pyridylmethyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-(4-chlorocinnamyl)-2H-pyridazin-3-one,

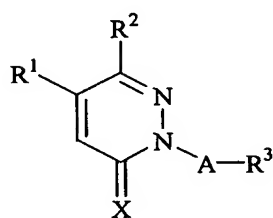
2-benzyl-5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2H-pyridazin-3-one,

2-(4-chlorobenzyl)-6-(4-methoxyphenyl)-5-(4-pyridinyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-ethyl-2H-pyridazin-3-one, or a salt thereof.

5. An OPN production inhibitor, comprising as an

active ingredient a pyridazine derivative represented by the following formula (I) or a derivative thereof:
[Chemical Formula 3]



(I)

5 wherein:

R^1 means a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and C_{1-6} alkoxy groups;

10 R^2 means a phenyl group which may be substituted at the 4-position thereof with a C_{1-6} alkoxy group or C_{1-6} alkoxythio group and may also be substituted at one or two other positions thereof a like number of substituents selected from halogen atoms, C_{1-6} alkoxy groups and C_{1-6} alkoxythio groups;

15 R^3 means a hydrogen atom; a C_{1-6} alkoxy group; a halogenated C_{1-6} alkyl group; a C_{3-6} cycloalkyl group; a phenyl, pyridyl or phenyloxy group which may be substituted by 1 to 3 substituents selected from halogen atoms, C_{1-6} alkyl groups, C_{1-6} alkoxy groups, carboxyl groups, C_{2-7} alkoxy carbonyl groups, nitro groups, amino groups, C_{1-6} alkylamino groups and C_{1-6} alkylthio groups;

20

a substituted or unsubstituted piperidino, piperidyl, piperazino or morpholino group; a substituted or unsubstituted aminocarbonyl group; a C₂₋₇ alkylcarbonyl groups; or a substituted or unsubstituted
5 piperazinocarbonyl group;

A means a single bond, a C₁₋₆ linear or branched alkylene group, or a C₂₋₉ linear or branched alkenylene group; and

X means an oxygen atom or a sulfur atom, with a
10 proviso that A is a single bond when R³ is a halogenated C₁₋₆ alkyl group.

6. The inhibitor of claim 5, wherein in the formula
(I),

R¹ is a phenyl or pyridyl group which may be
15 substituted at the 4-position thereof with a halogen atom selected from fluorine, chlorine or bromine or a C₁₋₆ alkoxy group;

R² is a phenyl group substituted at the 4-position thereof with a C₁₋₆ alkoxy group or a C₁₋₆ alkylthio group;

20 R³ is a hydrogen atom or a phenyl or pyridyl group which may be substituted by halogen atom or atoms; and

A is a C₁₋₃ alkylene group or C₃₋₄ alkenylene group.

7. The inhibitor of claim 5, wherein in the formula
(I),

25 R¹ is a phenyl or pyridyl group which may be

substituted at the 4-position thereof with a chlorine atom or a methoxy group;

R^2 is a phenyl group substituted at the 4-position thereof with a methoxy group or a methylthio group;

5 R^3 is a hydrogen atom, phenyl group, 4-chlorophenyl group, 2-pyridyl group or 3-pyridyl group; and

A is a methylene group, ethylene group or 2-propenylene group.

10 8. The inhibitor of claim 5, wherein said active ingredient is

5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(2-pyridylmethyl)-2H-pyridazine-3-thione,

15 5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(3-pyridylmethyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-(4-chlorocinnamyl)-2H-pyridazin-3-one,

2-benzyl-5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2H-pyridazin-3-one,

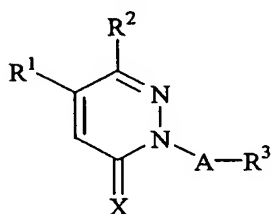
20 2-(4-chlorobenzyl)-6-(4-methoxyphenyl)-5-(4-pyridinyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-ethyl-2H-pyridazin-3-one, or a salt thereof.

25 9. A preventive and therapeutic agent for a disease resulting from enhanced OPN production, comprising as

an active ingredient a pyridazine derivative
represented by the following formula (I) or a derivative
thereof:

[Chemical Formula 4]



(I)

wherein:

R¹ means a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and C₁₋₆ alkoxy groups;

R² means a phenyl group which may be substituted at the 4-position thereof with a C₁₋₆ alkoxy group or C₁₋₆ alkoxythio group and may also be substituted at one or two other positions thereof a like number of substituents selected from halogen atoms, C₁₋₆ alkoxy groups and C₁₋₆ alkoxythio groups;

R³ means a hydrogen atom; a C₁₋₆ alkoxy group; a halogenated C₁₋₆ alkyl group; a C₃₋₆ cycloalkyl group; a phenyl, pyridyl or phenyloxy group which may be substituted by 1 to 3 substituents selected from halogen atoms, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, carboxyl groups, C₂₋₇ alkoxy carbonyl groups, nitro groups, amino

groups, C₁₋₆ alkylamino groups and C₁₋₆ alkylthio groups;
a substituted or unsubstituted piperidino, piperidyl,
piperazino or morpholino group; a substituted or
unsubstituted aminocarbonyl group; a C₂₋₇ alkylcarbonyl
5 groups; or a substituted or unsubstituted
piperazinocarbonyl group;

A means a single bond, a C₁₋₆ linear or branched
alkylene group, or a C₂₋₉ linear or branched alkenylene
group; and

10 X means an oxygen atom or a sulfur atom, with a
proviso that A is a single bond when R³ is a halogenated
C₁₋₆ alkyl group.

10. The preventive and therapeutic agent of claim 9,
wherein in the formula (I),

15 R¹ is a phenyl or pyridyl group which may be
substituted at the 4-position thereof with a halogen
atom selected from fluorine, chlorine or bromine or a
C₁₋₆ alkoxy group;

R² is a phenyl group substituted at the 4-position
20 thereof with a C₁₋₆ alkoxy group or a C₁₋₆ alkylthio group;

R³ is a hydrogen atom or a phenyl or pyridyl group
which may be substituted by halogen atom or atoms; and

A is a C₁₋₃ alkylene group or C₃₋₄ alkenylene group.

11. The preventive and therapeutic agent of claim 9,
25 wherein in the formula (I),

R^1 is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a chlorine atom or a methoxy group;

R^2 is a phenyl group substituted at the 4-position thereof with a methoxy group or a methylthio group;

R^3 is a hydrogen atom, phenyl group, 4-chlorophenyl group, 2-pyridyl group or 3-pyridyl group; and

A is a methylene group, ethylene group or 2-propenylene group.

12. The preventive and therapeutic agent of claim 9, wherein said active ingredient is

5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(2-pyridylmethyl)-2H-pyridazine-3-thione,

5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(3-pyridylmethyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-(4-chlorocinnamyl)-2H-pyridazin-3-one,

2-benzyl-5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2H-pyridazin-3-one,

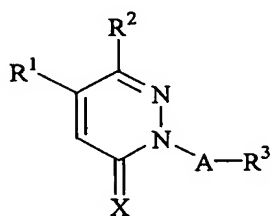
2-(4-chlorobenzyl)-6-(4-methoxyphenyl)-5-(4-pyridinyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-ethyl-2H-pyridazin-3-one, or a salt thereof.

13. Use of a pyridazine derivative represented by the

following formula (I) or a derivative thereof for the production of an OPN production inhibitor:

[Chemical Formula 5]



(I)

5 wherein:

R^1 means a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and C_{1-6} alkoxy groups;

10 R^2 means a phenyl group which may be substituted at the 4-position thereof with a C_{1-6} alkoxy group or C_{1-6} alkoxythio group and may also be substituted at one or two other positions thereof a like number of substituents selected from halogen atoms, C_{1-6} alkoxy groups and C_{1-6} alkoxythio groups;

15 R^3 means a hydrogen atom; a C_{1-6} alkoxy group; a halogenated C_{1-6} alkyl group; a C_{3-6} cycloalkyl group; a phenyl, pyridyl or phenyloxy group which may be substituted by 1 to 3 substituents selected from halogen atoms, C_{1-6} alkyl groups, C_{1-6} alkoxy groups, carboxyl groups, C_{2-7} alkoxy carbonyl groups, nitro groups, amino groups, C_{1-6} alkylamino groups and C_{1-6} alkylthio groups;

20

a substituted or unsubstituted piperidino, piperidyl, piperazino or morpholino group; a substituted or unsubstituted aminocarbonyl group; a C₂₋₇ alkylcarbonyl groups; or a substituted or unsubstituted
5 piperazinocarbonyl group;

A means a single bond, a C₁₋₆ linear or branched alkylene group, or a C₂₋₉ linear or branched alkenylene group; and

X means an oxygen atom or a sulfur atom, with a
10 proviso that A is a single bond when R³ is a halogenated C₁₋₆ alkyl group.

14. Use of claim 13, wherein in the formula (I),

R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a halogen
15 atom selected from fluorine, chlorine or bromine or a C₁₋₆ alkoxy group;

R² is a phenyl group substituted at the 4-position thereof with a C₁₋₆ alkoxy group or a C₁₋₆ alkylthio group;

R³ is a hydrogen atom or a phenyl or pyridyl group
20 which may be substituted by halogen atom or atoms; and

A is a C₁₋₃ alkylene group or C₃₋₄ alkenylene group.

15. Use of claim 13, wherein in the formula (I),

R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a chlorine
25 atom or a methoxy group;

R^2 is a phenyl group substituted at the 4-position thereof with a methoxy group or a methylthio group;

R^3 is a hydrogen atom, phenyl group, 4-chlorophenyl group, 2-pyridyl group or 3-pyridyl group; and

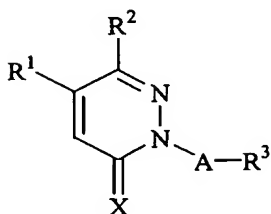
A is a methylene group, ethylene group or 2-propenylene group.

16. Use of claim 13, wherein said active ingredient is

5- (4-chlorophenyl) -6- [4- (methylthio)phenyl] -2- (2-pyridylmethyl) -2H-pyridazine-3-thione,
5- (4-chlorophenyl) -6- [4- (methylthio)phenyl] -2- (3-pyridylmethyl) -2H-pyridazin-3-one,
5,6-bis (4-methoxyphenyl) -2- (4-chlorocinnamyl) -2H-pyridazin-3-one,
2-benzyl-5- (4-chlorophenyl) -6- [4- (methylthio)phenyl] -2H-pyridazin-3-one,
2- (4-chlorobenzyl) -6- (4-methoxyphenyl) -5- (4-pyridinyl) -2H-pyridazin-3-one,
5,6-bis (4-methoxyphenyl) -2-ethyl-2H-pyridazin-3-one,
or a salt thereof.

17. Use of a pyridazine derivative represented by the following formula (I) or a derivative thereof for the production of a preventive and therapeutic agent for a disease resulting from enhanced OPN production:

[Chemical Formula 6]



(I)

wherein:

R¹ means a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and C₁₋₆ alkoxy groups;

R² means a phenyl group which may be substituted at the 4-position thereof with a C₁₋₆ alkoxy group or C₁₋₆ alkoxythio group and may also be substituted at one or two other positions thereof a like number of substituents selected from halogen atoms, C₁₋₆ alkoxy groups and C₁₋₆ alkoxythio groups;

R³ means a hydrogen atom; a C₁₋₆ alkoxy group; a halogenated C₁₋₆ alkyl group; a C₃₋₆ cycloalkyl group; a phenyl, pyridyl or phenyloxy group which may be substituted by 1 to 3 substituents selected from halogen atoms, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, carboxyl groups, C₂₋₇ alkoxy carbonyl groups, nitro groups, amino groups, C₁₋₆ alkylamino groups and C₁₋₆ alkylthio groups; a substituted or unsubstituted piperidino, piperidyl, piperazino or morpholino group; a substituted or

unsubstituted aminocarbonyl group; a C₂₋₇ alkylcarbonyl groups; or a substituted or unsubstituted piperazinocarbonyl group;

5 A means a single bond, a C₁₋₆ linear or branched alkylene group, or a C₂₋₉ linear or branched alkenylene group; and

 X means an oxygen atom or a sulfur atom, with a proviso that A is a single bond when R³ is a halogenated C₁₋₆ alkyl group.

10 18. Use of claim 17, wherein in the formula (I),

 R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a halogen atom selected from fluorine, chlorine or bromine or a C₁₋₆ alkoxy group;

15 R² is a phenyl group substituted at the 4-position thereof with a C₁₋₆ alkoxy group or a C₁₋₆ alkylthio group;

 R³ is a hydrogen atom or a phenyl or pyridyl group which may be substituted by halogen atom or atoms; and

 A is a C₁₋₃ alkylene group or C₃₋₄ alkenylene group.

20 19. Use of claim 17, wherein in the formula (I),

 R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a chlorine atom or a methoxy group;

25 R² is a phenyl group substituted at the 4-position thereof with a methoxy group or a methylthio group;

R^3 is a hydrogen atom, phenyl group, 4-chlorophenyl group, 2-pyridyl group or 3-pyridyl group; and

A is a methylene group, ethylene group or
5 2-propenylene group.

20. Use of claim 17, wherein the active ingredient is

5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(2-pyridylmethyl)-2H-pyridazine-3-thione,

10 5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(3-pyridylmethyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-(4-chlorocinnamyl)-2H-pyridazin-3-one,

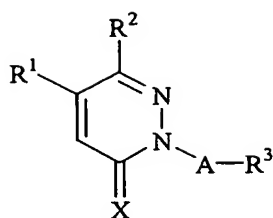
15 2-benzyl-5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2H-pyridazin-3-one,

2-(4-chlorobenzyl)-6-(4-methoxyphenyl)-5-(4-pyridinyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-ethyl-2H-pyridazin-3-one, or a salt thereof.

20 21. An OPN production inhibitor composition comprising a pyridazine derivative represented by the following formula (I) or a derivative thereof and a pharmaceutically acceptable carrier:

[Chemical Formula 7]



(I)

wherein:

R^1 means a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and C_{1-6} alkoxy groups;

R^2 means a phenyl group which may be substituted at the 4-position thereof with a C_{1-6} alkoxy group or C_{1-6} alkoxythio group and may also be substituted at one or two other positions thereof a like number of substituents selected from halogen atoms, C_{1-6} alkoxy groups and C_{1-6} alkoxythio groups;

R^3 means a hydrogen atom; a C_{1-6} alkoxy group; a halogenated C_{1-6} alkyl group; a C_{3-6} cycloalkyl group; a phenyl, pyridyl or phenyloxy group which may be substituted by 1 to 3 substituents selected from halogen atoms, C_{1-6} alkyl groups, C_{1-6} alkoxy groups, carboxyl groups, C_{2-7} alkoxy carbonyl groups, nitro groups, amino groups, C_{1-6} alkylamino groups and C_{1-6} alkylthio groups; a substituted or unsubstituted piperidino, piperidyl, piperazino or morpholino group; a substituted or unsubstituted aminocarbonyl group; a C_{2-7} alkylcarbonyl

groups; or a substituted or unsubstituted
piperazinocarbonyl group;

A means a single bond, a C₁₋₆ linear or branched
alkylene group, or a C₂₋₉ linear or branched alkenylene
5 group; and

X means an oxygen atom or a sulfur atom, with a
proviso that A is a single bond when R³ is a halogenated
C₁₋₆ alkyl group.

22. The composition of claim 21, wherein in the formula
10 (I),

R¹ is a phenyl or pyridyl group which may be
substituted at the 4-position thereof with a halogen
atom selected from fluorine, chlorine or bromine or a
C₁₋₆ alkoxy group;

15 R² is a phenyl group substituted at the 4-position
thereof with a C₁₋₆ alkoxy group or a C₁₋₆ alkylthio group;

R³ is a hydrogen atom or a phenyl or pyridyl group
which may be substituted by halogen atom or atoms; and

A is a C₁₋₃ alkylene group or C₃₋₄ alkenylene group.

20 23. The composition of claim 21, wherein in the formula
(I),

R¹ is a phenyl or pyridyl group which may be
substituted at the 4-position thereof with a chlorine
atom or a methoxy group;

25 R² is a phenyl group substituted at the 4-position

thereof with a methoxy group or a methylthio group;

R^3 is a hydrogen atom, phenyl group, 4-chlorophenyl group, 2-pyridyl group or 3-pyridyl group; and

5 A is a methylene group, ethylene group or 2-propenylene group.

24. The composition of claim 21, wherein the active ingredient is

5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(2-pyridylmethyl)-2H-pyridazine-3-thione,

5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(3-pyridylmethyl)-2H-pyridazin-3-one,

5,6-bis(4-methoxyphenyl)-2-(4-chlorocinnamyl)-2H-pyridazin-3-one,

15 2-benzyl-5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2H-pyridazin-3-one,

2-(4-chlorobenzyl)-6-(4-methoxyphenyl)-5-(4-pyridinyl)-2H-pyridazin-3-one,

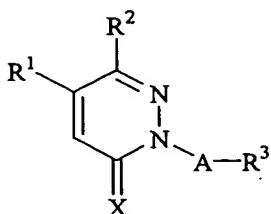
5,6-bis(4-methoxyphenyl)-2-ethyl-2H-pyridazin-3-one, or a salt thereof.

20

25. A preventive and therapeutic agent composition for a disease resulting from enhanced OPN production, comprising a pyridazine derivative represented by the following formula (I) or a derivative thereof and a pharmaceutically acceptable carrier:

25

[Chemical Formula 8]



(I)

wherein:

R¹ means a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and C₁₋₆ alkoxy groups;

R² means a phenyl group which may be substituted at the 4-position thereof with a C₁₋₆ alkoxy group or C₁₋₆ alkoxythio group and may also be substituted at one or two other positions thereof a like number of substituents selected from halogen atoms, C₁₋₆ alkoxy groups and C₁₋₆ alkoxythio groups;

R³ means a hydrogen atom; a C₁₋₆ alkoxy group; a halogenated C₁₋₆ alkyl group; a C₃₋₆ cycloalkyl group; a phenyl, pyridyl or phenyloxy group which may be substituted by 1 to 3 substituents selected from halogen atoms, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, carboxyl groups, C₂₋₇ alkoxy carbonyl groups, nitro groups, amino groups, C₁₋₆ alkylamino groups and C₁₋₆ alkylthio groups; a substituted or unsubstituted piperidino, piperidyl, piperazino or morpholino group; a substituted or

unsubstituted aminocarbonyl group; a C₂₋₇ alkylcarbonyl groups; or a substituted or unsubstituted piperazinocarbonyl group;

5 A means a single bond, a C₁₋₆ linear or branched alkylene group, or a C₂₋₉ linear or branched alkenylene group; and

X means an oxygen atom or a sulfur atom, with a proviso that A is a single bond when R³ is a halogenated C₁₋₆ alkyl group.

10 26. The composition of claim 25, wherein in the formula (I),

R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a halogen atom selected from fluorine, chlorine or bromine or a C₁₋₆ alkoxy group;

R² is a phenyl group substituted at the 4-position thereof with a C₁₋₆ alkoxy group or a C₁₋₆ alkylthio group;

R³ is a hydrogen atom or a phenyl or pyridyl group which may be substituted by halogen atom or atoms; and

20 A is a C₁₋₃ alkylene group or C₃₋₄ alkenylene group.

27. The composition of claim 25, wherein in the formula (I),

R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a chlorine atom or a methoxy group;

R^2 is a phenyl group substituted at the 4-position thereof with a methoxy group or a methylthio group;

R^3 is a hydrogen atom, phenyl group, 4-chlorophenyl group, 2-pyridyl group or 3-pyridyl group; and

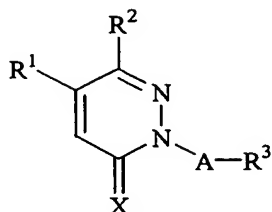
A is a methylene group, ethylene group or 2-propenylene group.

28. The composition of claim 25, wherein the active ingredient is

10 5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(2-pyridylmethyl)-2H-pyridazine-3-thione,
5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2-(3-pyridylmethyl)-2H-pyridazin-3-one,
5,6-bis(4-methoxyphenyl)-2-(4-chlorocinnamyl)-2H-pyridazin-3-one,
15 2-benzyl-5-(4-chlorophenyl)-6-[4-(methylthio)phenyl]-2H-pyridazin-3-one,
2-(4-chlorobenzyl)-6-(4-methoxyphenyl)-5-(4-pyridinyl)-2H-pyridazin-3-one,
20 5,6-bis(4-methoxyphenyl)-2-ethyl-2H-pyridazin-3-one,
or a salt thereof.

29. A therapeutic method of a disease resulting from enhanced OPN production, comprising administering an effective amount of a pyridazine derivative represented by the following formula (I) or a derivative thereof:

[Chemical Formula 9]



(I)

wherein:

5 R¹ means a phenyl or pyridyl group which may be substituted by 1 to 3 substituents selected from halogen atoms and C₁₋₆ alkoxy groups;

 R² means a phenyl group which may be substituted at the 4-position thereof with a C₁₋₆ alkoxy group or C₁₋₆ alkoxythio group and may also be substituted at one
10 or two other positions thereof a like number of substituents selected from halogen atoms, C₁₋₆ alkoxy groups and C₁₋₆ alkoxythio groups;

 R³ means a hydrogen atom; a C₁₋₆ alkoxy group; a halogenated C₁₋₆ alkyl group; a C₃₋₆ cycloalkyl group;
15 a phenyl, pyridyl or phenyloxy group which may be substituted by 1 to 3 substituents selected from halogen atoms, C₁₋₆ alkyl groups, C₁₋₆ alkoxy groups, carboxyl groups, C₂₋₇ alkoxy carbonyl groups, nitro groups, amino groups, C₁₋₆ alkylamino groups and C₁₋₆ alkylthio groups;
20 a substituted or unsubstituted piperidino, piperidyl, piperazino or morpholino group; a substituted or

unsubstituted aminocarbonyl group; a C₂₋₇ alkylcarbonyl groups; or a substituted or unsubstituted piperazinocarbonyl group;

5 A means a single bond, a C₁₋₆ linear or branched alkylene group, or a C₂₋₉ linear or branched alkenylene group; and

X means an oxygen atom or a sulfur atom, with a proviso that A is a single bond when R³ is a halogenated C₁₋₆ alkyl group.

10 30. The method of claim 29, wherein in the formula (I),

R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a halogen atom selected from fluorine, chlorine or bromine or a C₁₋₆ alkoxy group;

R² is a phenyl group substituted at the 4-position thereof with a C₁₋₆ alkoxy group or a C₁₋₆ alkylthio group;

R³ is a hydrogen atom or a phenyl or pyridyl group which may be substituted by halogen atom or atoms; and

20 A is a C₁₋₃ alkylene group or C₃₋₄ alkenylene group.

31. The method of claim 29, wherein in the formula (I),

R¹ is a phenyl or pyridyl group which may be substituted at the 4-position thereof with a chlorine atom or a methoxy group;

R^2 is a phenyl group substituted at the 4-position thereof with a methoxy group or a methylthio group;

R^3 is a hydrogen atom, phenyl group, 4-chlorophenyl group, 2-pyridyl group or 3-pyridyl group; and

A is a methylene group, ethylene group or 2-propenylene group.

32. The method of claim 29, wherein the active ingredient is

5- (4-chlorophenyl) -6- [4- (methylthio) phenyl] -2- (2-pyridylmethyl) -2H-pyridazine-3-thione,
5- (4-chlorophenyl) -6- [4- (methylthio) phenyl] -2- (3-pyridylmethyl) -2H-pyridazin-3-one,
5,6-bis (4-methoxyphenyl) -2- (4-chlorocinnamyl) -2H-pyridazin-3-one,
2-benzyl-5- (4-chlorophenyl) -6- [4- (methylthio) phenyl] -2H-pyridazin-3-one,
2- (4-chlorobenzyl) -6- (4-methoxyphenyl) -5- (4-pyridinyl) -2H-pyridazin-3-one,
5,6-bis (4-methoxyphenyl) -2-ethyl-2H-pyridazin-3-one,
or a salt thereof.

33. The method of claim 29, wherein said disease resulting from said enhanced OPN production is post-PTCA restenosis, a kidney disease, tuberculosis, sarcoidosis, cirrhosis, colorectal cancer, ovarian

cancer, prostatic cancer, breast cancer, urinary calculus or myelomatous tumor.

34. The method of claim 29, wherein said disease resulting from said enhanced OPN production is multiple myeloma.